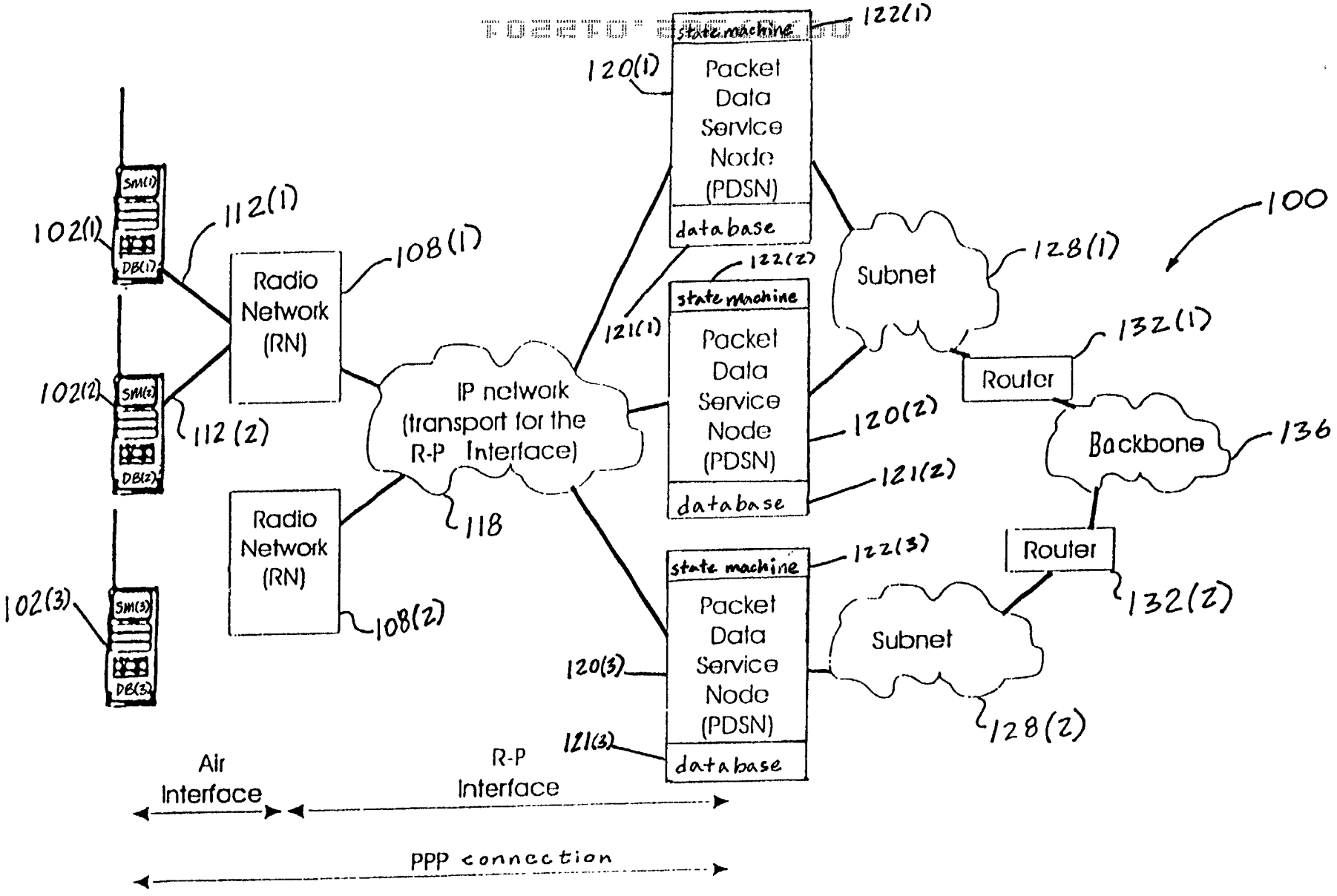
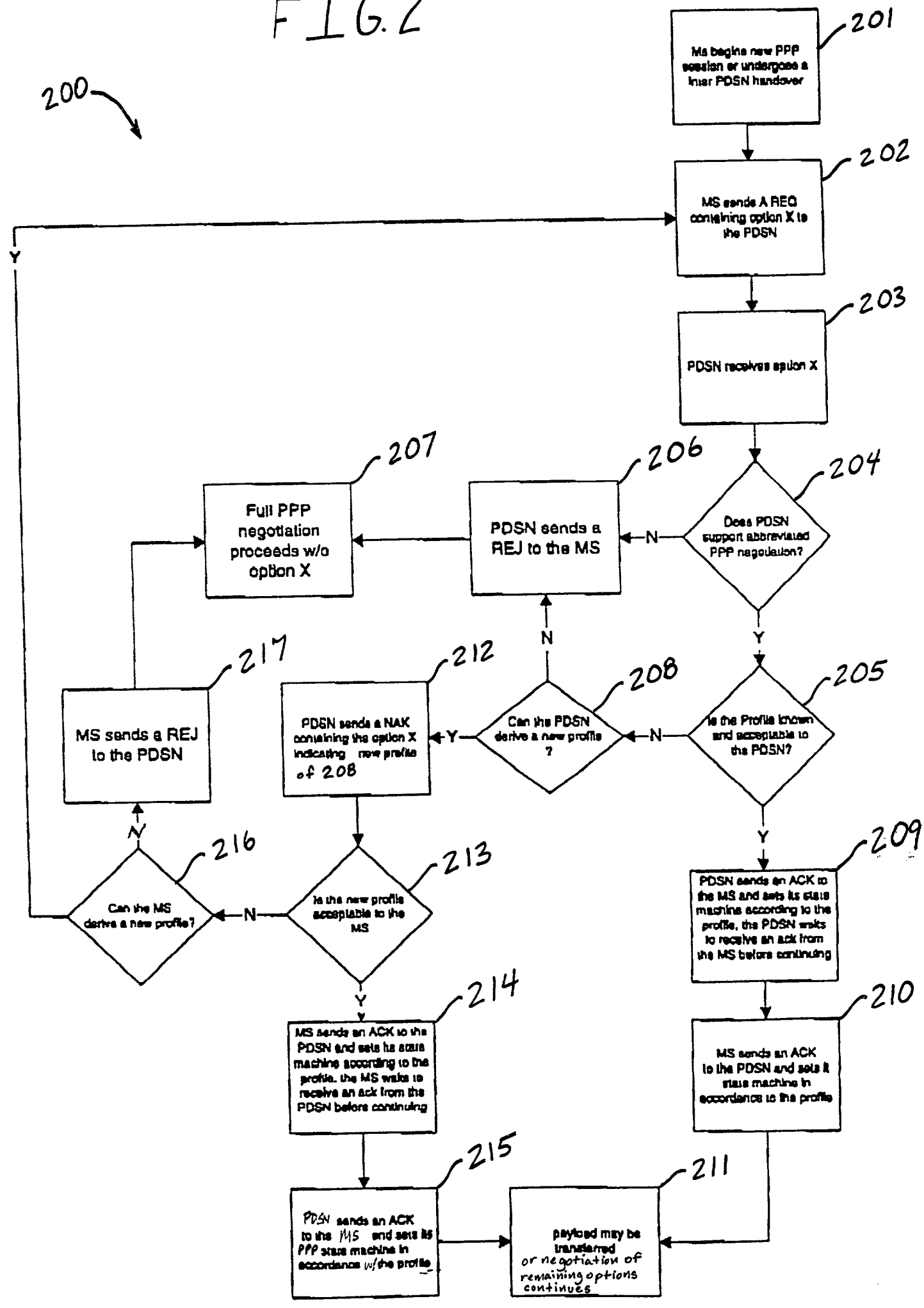

state machine
122(1)
120(1)
Packet Data Service Node (PDSN)
database
100
102(1)
SM(1)
DB(1)
112(1)
108(1)
Radio Network (RN)
Subnet
128(1)
122(2)
state machine
121(1)
Packet Data Service Node (PDSN)
132(1)
Router
102(2)
SM(2)
DB(2)
112(2)
IP network (transport for the R-P Interface)
120(2)
Backbone
136
database
121(2)
118
Radio Network (RN)
108(2)
Router
state machine
122(3)
102(3)
SM(3)
DB(3)
Packet Data Service Node (PDSN)
Subnet
132(2)
120(3)
121(3)
database
128(2)
Air Interface
R-P Interface
PPP connection

FIG. 1

FIG. 2


200
201
MS begins new PPP session or undergoes a inter PDSN handover
202
MS sends A REQ containing option X to the PDSN
203
PDSN receives option X
204
Does PDSN support abbreviated PPP negotiation?
N
206
PDSN sends a REJ to the MS
207
Full PPP negotiation proceeds w/o option X
Y
205
Is the Profile known and acceptable to the PDSN?
N
208
Can the PDSN derive a new profile ?
Y
212
PDSN sends a NAK containing the option X indicating new profile of 208
217
MS sends a REJ to the PDSN
N
Y
209
PDSN sends an ACK to the MS and sets its state machine according to the profile, the PDSN waits to receive an ack from the MS before continuing
213
Is the new profile acceptable to the MS
N
216
Can the MS derive a new profile?
N
Y
210
MS sends an ACK to the PDSN and sets it state machine in accordance to the profile
214
MS sends an ACK to the PDSN and sets its state machine according to the profile. the MS waits to receive an ack from the PDSN before continuing
215
PDSN sends an ACK to the MS and sets its PPP state machine in accordance w/the profile
211
payload may be transferred or negotiation of remaining options continues

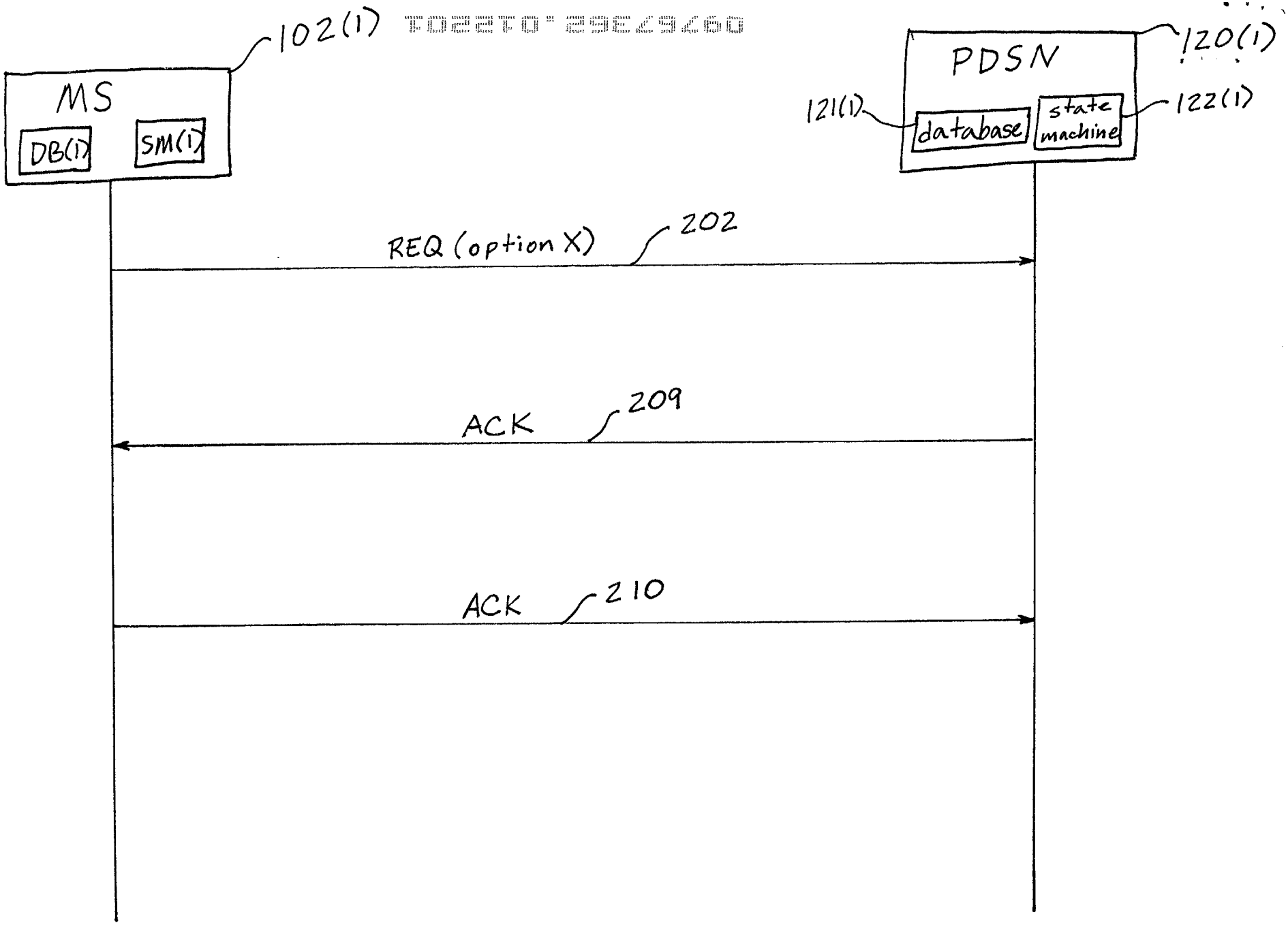

102(1)
MS
DB(1)
SM(1)
PDSN
120(1)
121(1)
database
state machine
122(1)
REQ (option X)
202
ACK
209
ACK
210

FIG.3

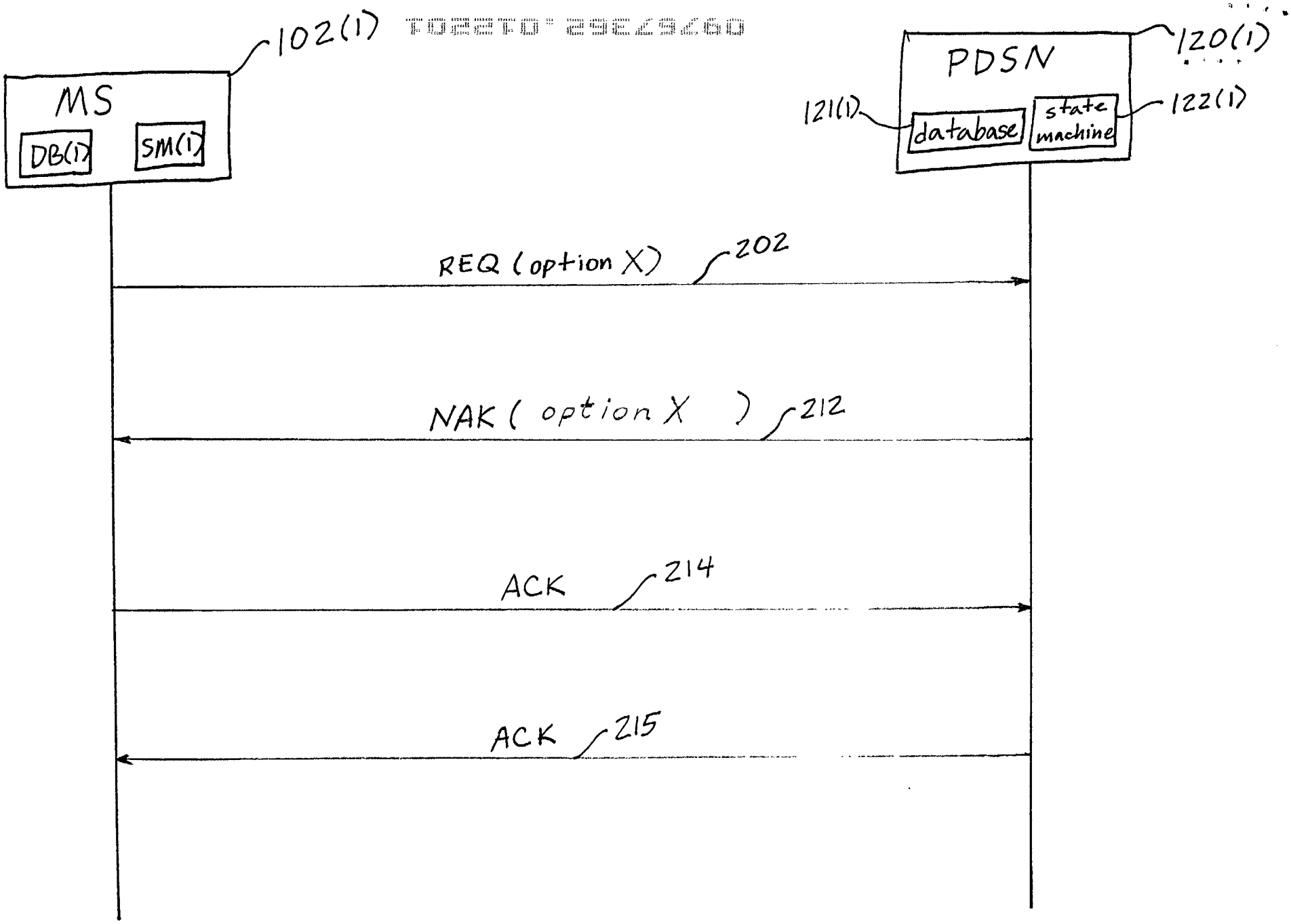

102(1)
MS
DB(1)
SM(1)
PDSN
120(1)
121(1)
database
state machine
122(1)
REQ (option X)
202
NAK (option X)
212
ACK
214
ACK
215

FIG. 4